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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,233	01/21/2004	Kia Silverbrook	MPA09US	2195
24011	7590	04/14/2006	EXAMINER	
SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, NSW 2041 AUSTRALIA			MARTIN, LAURA E	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/760,233	Applicant(s) SILVERBROOK ET AL.	
	Examiner Laura E. Martin	Art Unit 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook (US 6439908) in view of Silverbrook et al. (US 2002/0140954).

As per claim 1, Silverbrook et al. ('908) teaches a printhead assembly (figure 2, element 10) comprising: at least two printhead modules (figure 2, element 12) each comprising a least two printhead integrated circuits (figure 2, element 18), each of which has nozzles formed therein (figure 3, element 42) for delivering printing fluid into the surface of print media, and a support member (figure 2, element 28) supporting and carrying the printing fluid for the at least two printhead integrated circuits (figure 2, element 18); and a casing (figure 2, element 14) in which at least two printhead modules are arranged so as to be removably mounted in linearly aligned relationship, wherein the assembly has an aggregate length (column 1, line 6) and a number of printhead integrated circuits (column 3, line 49-50) predetermined to provide for selected pagewidth printing.

As per claim 2, Silverbrook et al. ('908) teaches a printhead assembly (figure 2, element 10) wherein each of the printhead modules has sixteen printhead integrated circuits (column 3, lines 49-50).

As per claim 3, Silverbrook et al. ('908) teaches a printhead assembly (figure 2, element 10) wherein the at least one printhead module (figure 2, element 12) is formed as a unitary arrangement of the at least two printhead integrated circuits (figure 2, element 18), the support member (figure 2, element 28), the electrical connector (column 3, line 59-65), and the at least one fluid distribution member (figure 7, element 30) mounting the at least two printhead integrated circuits to the support member; and the support member has at least one longitudinally extending channel (figure 8, element 72) for carrying the printhead fluid for the printhead integrated circuits and includes a plurality of apertures (figure 8, element 72) extending through a wall of the support member arranged so as to direct the printing fluid from the at least one channel to associated nozzles in both, or if more than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members (column 4, lines 41-44).

As per claim 4, Silverbrook et al. ('908) teaches a printhead assembly (figure 2, element 10) wherein each printhead module of the at least two printhead modules has end portions which permit interconnection of the linearly aligned printhead modules and provide for fluid connection (figure 2, element 16) of the channels thereof (see figure 2).

As per claim 5, Silverbrook et al. ('908) teaches a printhead assembly (figure 2, element 10) wherein the end portions of each of the printhead modules comprise complementary female (figure 10, element 38) and male (figure 10, element 42) end portions.

As per claim 6, ('908) Silverbrook et al. teaches a printhead assembly (figure 2, element 10) further comprising a sealing adhesive (figure 1, element 84) provided at the interface of the interconnected printhead modules.

Silverbrook et al. ('908) does not teach the support members of the modules being configured to communicate said printing fluid with one another.

Silverbrook et al. ('954) teaches support members of the modules (figure 13, elements 15 and 16) being configured to communicate said printing fluid with one another (figure 13, element 11).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the printhead assembly of Silverbrook et al. ('908) with the disclosure of Silverbrook et al. ('954) in order to allow for easier printing.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. (US 6439908) and Silverbrook et al. (US 20020140954), and further in view of Lu et al. (US 2003/0007042).

Silverbrook et al. ('908) teaches a sealing adhesive; however, it does not disclose the sealing adhesive being an epoxy.

Lu et al. discloses a sealing adhesive being epoxy [0002].

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the printhead assembly of Silverbrook as modified et al. with that of Lu et al. in order to create a more durable apparatus with continuous ink flow.

### ***Response to Arguments***

The figures and specification have been amended and a terminal disclaimer has been submitted.

Applicant's arguments filed 1/12/05 have been fully considered but they are not persuasive.

Applicant argues that Silverbrook et al. ('908) does not disclose an arrangement in which modules have more than one printhead chip; however, a "printhead chip" is not claimed. Applicant claims a "printhead integrated circuit", and in column 14, lines 49-50, Silverbrook et al. ('908) discloses 16 data connections.

Applicant also argues that Silverbrook et al. ('908) does not disclose scalability of the printhead assembly; however, it is not apparent in the claims that scalability is taught.

Applicant also argues that Silverbrook does not teach or suggest the one of ordinary skill in the art to modify the disclosed assembly; however, it would be obvious to one skilled in the art to modify the present invention with Silverbrook et al. ('748) in order to have continuous ink supplies to all chambers, and it would be obvious to one skilled in the art to modify the present invention with Lu et al. because epoxy is a type of adhesive which can be used on any type of printhead.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura E. Martin whose telephone number is (571) 272-2160. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2853

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Laura E. Martin

  
4/13/06  
**MANISH S. SHAH**  
**PRIMARY EXAMINER**